

BIPOLAR JUNCTION TRANSISTOR AND FABRICATING METHOD

Abstract

A bipolar junction transistor includes a dielectric layer formed on a predetermined region of a substrate, an opening formed in the dielectric layer and a portion of the substrate being exposed, a semiconductor layer formed on a sidewall and a bottom of the opening and on a portion of the dielectric layer outside the opening, a spacer formed on the semiconductor layer to define a self-aligned emitter region in the opening, an emitter conductivity layer being filled with the self-aligned emitter region and a PN junction being formed between the emitter conductivity layer and the semiconductor layer, and a salicide layer formed on the emitter conductivity layer and on the portion of the semiconductor layer extending outside the opening.